

of time for filing this brief and fees therefor, are dealt with in the accompanying Transmittal of Appeal Brief.

Appellants file herewith an Appeal Brief in connection with the above-identified application, wherein claims 1 and 3-8 were finally rejected in the final Office Action of January 13, 2003. What follows is Appellants' Appeal Brief (submitted in triplicate) in accordance with 37 C.F.R. §1.192(a):

I. REAL PARTY INTEREST (37 C.F.R. §1.192(c)(1))

The real parties at interest in this appeal are the inventors named in the caption of this brief (Michael J. Sullivan et al.) and their assignee, Spalding Sports Worldwide, Inc. (formerly Lisco, Inc.).

II. RELATED APPEALS AND INTERFERENCES (37 C.F.R. §1.192(c)(2))

The present application was previously before the Board of Patent Appeals and Interferences. That earlier appeal was designated as Appeal No. 2002-0260 and concerned whether claims 1 and 3-8 were properly supported under § 112, first paragraph, by the originally filed application. Specifically, in remanding the application back to the Examiner to again analyze this issue, the Board held:

[W]e note that each specific limitation which the examiner has found to lack proper support in the originally filed specification appears to find proper support in the originally filed claims which are part of the originally filed specification.

Page 3 of the Board's Opinion in Appeal No. 2002-0260.

Upon issuance of that opinion by the Board, the Examiner withdrew the previous rejection under § 112, first paragraph, and re-opened prosecution.

It is believed that there are no pending appeals before the Board which would affect the present appeal. However, several appeals are pending in applications, or notices of appeal have been filed in certain applications, that might conceivably indirectly affect the Board's decision in this application. Accordingly, the following applications are brought to the Board's attention as follows:

<u>U.S. Application Serial No.</u>	<u>Filing Date</u>
08/815,556	03/12/97
10/047,626	01/15/02
08/926,246	09/05/97
08/926,194	09/09/97

These applications claim priority from one or more of the same applications upon which the present application claims priority.

III. STATUS OF CLAIMS (37 C.F.R. §1.192(c)(3))

The status of the claims set forth after the Final Office Action mailed January 13, 2003 was, and is, as follows:

Allowed claims: **none**

Rejected claims: **1 and 3-8**

The present appeal is directed specifically to claims **1 and 3-8**.

IV. STATUS OF THE AMENDMENTS (37 C.F.R. §1.192(c)(4))

In the January 13, 2003 Action, the Examiner objected to the specification. The Examiner also objected to the declaration previously filed in this application. Claims 1 and 3-8 were rejected under 35 U.S.C. § 112, first paragraph for purportedly not being sufficiently enabled by the present specification. Claims 1 and 3-8 were also rejected under 35 U.S.C. § 102(b) for allegedly being anticipated by EP 633,043 to Higuchi.

V. SUMMARY OF THE INVENTION (37 C.F.R. §1.192(c)(5))

The present invention is directed to a three piece solid golf ball (page 9, line 18 of the specification) (claim 1). The golf ball comprises a center core, an intermediate layer, and a cover enclosing the core through the intermediate layer (page 9, line 18) (claim 1). The center core has a diameter of at least 29 mm (1.1417 inches) and a specific gravity of less than 1.4 (claim 1). The intermediate layer is formed of an ionomer resin base composition having a thickness of at least 1 mm (0.0397 inches), a specific gravity of less than 1.2 (pp. 24 and 61), and a hardness of at least 85 on the JIS-C (Shore C) scale (claim 1). The specific gravity of the intermediate layer is lower than the specific gravity of the center core (claim 1). The cover has a thickness of 1 to 2.54 mm (0.0397 to 0.10 inches) and is softer than the intermediate layer (claim 1).

In certain aspects of the invention the cover has a hardness of 50 to 81 Shore C (claim 3).

In another aspect, the center core is comprised of a polybutadiene base rubber composition (claim 4).

In a further aspect of the invention, the diameter of the center core is in the range of 29 to 37 mm (claim 5).

In a further aspect, the difference in specific gravity between the core and the intermediate layer is in the range of 0.1 to 0.5 (claim 6).

In still another aspect of the invention, the specific gravity of the intermediate layer is in the range of 0.9 to 1.0 (claim 7).

And, in another aspect, the hardness of the intermediate layer is in the range of 90 to 100 on the Shore C scale (claim 8).

VI. ISSUES (37 C.F.R. §1.192 (c)(6))

Issue No. 1

Where all claims previously added by Appellant were held by the Board as appearing to find proper support in the specification; whether an objection to the specification for being designated a "divisional" instead of a "continuation-in-part" is improper?

Issue No. 2

Where all claims previously added by Appellant were held by the Board as appearing to find proper support in the specification; whether an objection to the declaration for the application being a "divisional" instead of a "continuation-in-part" is improper?

Issue No. 3

Whether one reasonably skilled in the field of golf ball manufacture and design, could make or use the subject matter of claims 1 and 3-8, from the disclosure in the present application coupled with information known in the art, without undue experimentation?

Issue No. 4

Whether claims 1 and 3-8 are entitled to claim priority upon the June 1, 1993 filing date of U.S. application Serial No. 08/070,510?

VII. GROUPING OF CLAIMS (37 C.F.R. §1.192 (c)(7))

No two or more claims at issue, i.e, claims 1 and 3-8, stand or fall together. That is, each claim recites separately patentable subject matter. This is explained in detail below.

VIII. ARGUMENTS (37 C.F.R. §1.192 (c)(8))

In the January 13, 2003 Action, the Examiner objected to the specification. The Examiner also objected to the declaration previously filed in this application. Claims 1 and 3-8 were rejected under 35 U.S.C. § 112, first paragraph for purportedly not being sufficiently enabled by the present specification. Claims 1 and 3-8 were rejected under 35 U.S.C. § 102(b) for allegedly being anticipated by EP 633,043 to Higuchi.

In view of the following, it is respectfully urged that all pending claims are in condition for allowance.

A. Objection to Specification Must Be Reversed

The Examiner contended that "this application adds and claims additional disclosure, it must be changed to a continuation-in-part application instead of a divisional." Specifically, the Examiner asserted:

Specification The specification is objected to under 37 CFR 1.63(d)(iii) and 37 CFR 1.78. The applicant has improperly stated that this application is a divisional of prior Application No. 08/631,316 [*sic*, 08/631,613]. Because this application adds and claims additional disclosure, it must be changed to a continuation-in-part application instead of a divisional. Applicant should note that with a continuation-in-part application the new subject matter presented in the instant case is not entitled to any date prior to the instant application's filing date of September 10, 1997.

Page 2 of January 13, 2003 Office Action (bracketed text added).

The present application is a divisional of U.S. Serial No. 08/631,613 filed April 10, 1996, now U.S. Patent 5,803,831 which is a CIP of U.S. Serial No.

08/591,046 filed January 25, 1996, now abandoned; and a CIP of U.S. Serial No. 08/542,793 filed October 13, 1995, now abandoned, which is a CIP of U.S. Serial No. 08/070,510 filed June 1, 1993, now abandoned.

The Examiner argues that the present application is not a divisional of 08/631,613; but instead is a CIP. The Examiner asserts that the present application "adds and claims additional disclosure" (apparently as compared to the '613 application).

The Examiner fails to identify what the "additional disclosure" is. If, the Examiner is referring to the subject matter that was previously at issue under § 112, first paragraph, and which the Board previously addressed, that discussion is presented below. The Examiner is respectfully reminded that upon reviewing whether the subject matter at issue was properly supported by the originally filed application, the Board held:

[W]e note that each specific limitation which the examiner has found to lack proper support in the originally filed specification appears to find proper support in the originally filed claims which are part of the originally filed specification.

Page 3, Appeal No. 2002-0260, Application No. 08/926,872.

It is indisputable that if the disputed subject matter is properly supported by the originally filed specification, then it is not new matter (citations omitted). The Board held that the disputed subject matter appears to be properly supported. Accordingly, the present application is not a CIP of 08/631,613.

Appellants are also puzzled as to why the Examiner would wait for a time period of over five (5) years since the filing date of the present application to now contend that the present application is not a divisional of 08/631,613. Furthermore, it is disconcerting that the Examiner would wait until this rather late stage of prosecution, i.e. in a final Action, and make such an assertion.

Appellants respectfully request that the objection be withdrawn.

B. Objection to Declaration Must Be Reversed

The Examiner objected to the previously filed Declaration in this application as follows:

Oath/Declaration The declaration is objected to under 37 CFR 1.63 as being an improper divisional application. The declaration states that this application is a divisional of Application No. 08/631,613, however, this application adds substantial subject matter

not presented in the prior application. The declaration must be changed to reflect the additionally recited subject matter and state that this application is a continuation-in-part of Application No. 08/631,613.

Page 2 of January 13, 2003 Office Action.

For the same reasons previously presented in section A., the designation on the declaration need not be changed. Since the disputed subject matter is properly supported by the originally filed specification, then it is not new matter. Accordingly, the present application is not a CIP of 08/631,613.

C. Rejection of Claims 1 and 3-8 Under 35 U.S.C. § 112, First Paragraph, Must Be Reversed

In support of this ground of rejection, the Examiner contended:

Claims 1 and 3-8 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 1 - the core with a specific gravity less than 1.4 is non-enabling. Applicant discloses a specific gravity of 1.47 and 1.17, one of which is over the 1.4 limitation. The remaining values in the range is non-enabling subject matter. The limitation requires the specific gravity to be less than 1.4 or from 0 to 1.4. The specific gravity of the intermediate layer is not enabling. The claim requires the intermediate layer to be less than 1.2. Obviously 1.3 is outside the range in question. The values 0.953 and 0.960 cited on page 24 of the specification are specific gravity values for the base ionomer and not the actual composition of the intermediate layer. Therefore the only value relevant to the intermediate layer having a specific gravity less than 1.2 is the value 0.95. The JIS-C hardness from 85 to 89.9 of the intermediate layer is not enabling. Applicant discloses a Shore D hardness of at least 60, which converts to approximately 90 on the JIS-C scale.

Claim 6 - the difference of 0.1 to 0.5 between the core and the intermediate layer specific gravity is not enabling. Again values within the claimed range have been shown but the entire range is not enabling.

Page 3 of January 13, 2003 Office Action.

In response to previous explanations as to this issue, the Examiner further asserted:

Applicant's arguments filed November 4, 2002 have been fully considered but they are not persuasive. Applicant argues the 112, enablement rejection and recites MPEP 2164, p.2100-174. Applicant has been advised to add the subject matter to the specification however, the application type must be changed from a divisional to a continuation-in-part as shown above. Since applicant has not changed the type of the application the 112, first paragraph has been maintained. Applicant also argues the examiner's view is

ill-advised and the enablement requirement has been satisfied. The Examiner disagrees. Applicant's attention is directed to MPEP 2164.04, pgs. 2100-178 and 2100-179 stating: "(examiner must provide a reasonable explanation as to why the scope of protection provided by a claim is not adequately enabled the disclosure)."

The sections also add:

The language should focus on those factors, reasons, and evidence that lead the examiner to conclude that the specification fails to teach how to make and use the claimed invention without undue experimentation, or that the scope of any enablement provided to one skilled in the art is not commensurate with the scope of protection sought by the claims. (emphasis added)

MPEP 2164.04 makes clear that the claims of the application should be rejected under 35 USC 112, 1st paragraph as containing subject matter which was not described in the specification to enable one of ordinary skill in the art to make and/or use the invention as claimed. As shown above the examiner has satisfied the rejection under 35 USC 112, 1st paragraph by specifically noting portions of the specification where the scope of enablement is not commensurate with that being sought by the instant claims.

Regarding applicant's question as to why certain dimensions are enabled by the instant specification while others are not, it should be abundantly clear to applicant that those dimensions recited in the claims and set forth by the specification are enabled while those that are recited in the claims but not set forth by the specification are not enabled.

Page 4-5 of January 13, 2003 Office Action.

In rejecting the claims under § 112 for alleged lack of enablement, the Examiner attempts to ignore or bypass the long recognized standard test for determining whether claimed subject matter is sufficiently enabled by a specification.

The standard for determining whether the specification meets the enablement requirement was set forth in *Mineral Separation v. Hyde*, 242 U.S. 261,270 (1916), as "is the experimentation needed to practice the invention undue or unreasonable?" And, according to § 2164.01 of the MPEP, this standard is "still the one to be applied." See *In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988). "The test of enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art without undue experimentation." See *United States v. Telectronics, Inc.*, 857 F.2d 778, 785, 8 USPQ2d 1217, 1223 (Fed. Cir. 1988).

Appellants respectfully urge the Examiner to read the explanation as to how the present specification enables the claims, presented on pages 4 to 8 of the previous Response filed on October 28, 2002.

The Examiner's assertions in the present case concerning non-enablement are directed to certain values of specific gravity and hardness. That is,

the Examiner contends that although certain values are enabled by the present specification, other values are not enabled.

Appellants question how some specific gravity and hardness values are enabled, while other specific gravity and hardness values are not enabled? The Examiner admits that the specification discloses ranges of specific gravity and hardness used in the various components of the claimed golf balls. The Examiner demands that identical values be given in the specification for every value claimed. It is clear that the Examiner is demanding a significantly higher standard for enablement than that which the law requires.

As the Court of Appeals for the Federal Circuit pronounced, all that is required is that one reasonably skilled in the art be able to make or use the invention from the disclosure in the patent coupled with information known in the art, without undue experimentation.

The present specification, coupled with information known in the art, readily enables one skilled in this field of art to make and use, without undue experimentation, golf balls with cores and/or layers having the claimed specific gravity or hardness values.

Apparently, the Examiner's sole basis upon which the present rejection is based, is that several values of specific gravity and hardness are not identically disclosed in the specification. Apparently, the Examiner is of the view that it would constitute undue experimentation to make a core with a specific gravity of less than 1.4 since the specification only discloses core specific gravities of 1.47 and 1.17. Similarly, it appears that the Examiner is of the view that it would constitute undue experimentation to form an intermediate layer having a specific gravity of less than 1.2 since the specification only discloses intermediate layer specific gravities of 1.2, 0.95, 0.953, 0.960 and numerous other values therebetween. Moreover, it appears that the Examiner believes it would constitute undue experimentation to produce an intermediate layer with a hardness of at least 85 Shore C since the specification only discloses several Shore D values for this layer.¹

In fact, the present application itself refers to prior art blending techniques for adjusting hardness of a material for use in a golf ball:

¹Apparently, the Examiner recognizes the fact that Shore C values may be converted to Shore D values and vice versa.

In various attempts to produce a durable, high spin ionomer golf ball, the golfing industry has blended the hard ionomer resins with a number of softer ionomeric resins. U.S. Patent Nos. 4,884,814 and 5,120,791 are directed to cover compositions containing blends of hard and soft ionomeric resins. The hard copolymers typically are made from an olefin and an unsaturated carboxylic acid. The soft copolymers are generally made from an olefin, an unsaturated carboxylic acid, and an acrylate ester. It has been found that golf ball covers formed from hard-soft ionomer blends tend to become scuffed more readily than covers made of hard ionomer alone.

Page 5 of the present application.

Further descriptions of tailoring the hardness of a golf ball layer are provided in the present application, such as on pages 14-15:

An additional comonomer such as an acrylate ester (i.e. iso – or n-butylacrylate, etc.) can also be included to produce a softer terpolymer.

In addition, various commercially available ionomers are described throughout the present application in which the ionomers differ according to hardness, specific gravity, and other properties. A skilled artisan would be able to select one or more of these materials to make and use the subject matter of the claims at issue without undue experimentation.

The present application continues and provides extensive teachings as to modifying the hardness of one or more ionomers that may be used in the claimed golf balls:

The softening comonomer that can be optionally included in the inner cover layer for the golf ball of the invention may be selected from the group consisting of vinyl esters of aliphatic carboxylic acids wherein the acids have 2 to 10 carbon atoms, vinyl ethers wherein the alkyl groups contains 1 to 10 carbon atoms, and alkyl acrylates or methacrylates wherein the alkyl group contains 1 to 10 carbon atoms. Suitable softening comonomers include vinyl acetate, methyl acrylate, methyl methacrylate, ethyl acrylate, ethyl methacrylate, butyl acrylate, butyl methacrylate, or the like.

Page 22 of the present application.

In some circumstances, an additional comonomer such as an acrylate ester (i.e., iso- or n-butylacrylate, etc.) can also be included to produce a softer terpolymer.

Page 28.

In describing various blends and compositions for forming an outer cover layer, specific softening agents and moieties are noted:

Preferably, the acrylate ester-containing ionic copolymer or copolymers are terpolymers, but additional monomers can be combined into the copolymers if the monomers do not substantially reduce the scuff resistance or other good playability properties of the cover.

For a given copolymer, the olefin is selected from the group consisting of olefins having 2 to 8 carbon atoms, including, as non-limiting examples, ethylene, propylene, butene-1, hexene-1 and the like. Preferably the olefin is ethylene.

The acrylate ester is an unsaturated monomer having from 1 to 21 carbon atoms which serves as a softening comonomer. The acrylate ester preferably is methyl, ethyl, n-propyl, n-butyl, n-octyl, 2-ethylhexyl, or 2-methoxyethyl 1-acrylate, and most preferably is methyl acrylate or n-butyl acrylate. Another suitable type of softening comonomer is an alkyl vinyl ether selected from the group consisting of n-butyl, n-hexyl, 2-ethylhexyl, and 2-methoxyethyl vinyl ethers.

Page 32.

In further describing blending of materials, varying hardness ranges are noted as:

The one or more acrylate ester-containing ionic copolymers each has an individual Shore D hardness of about 5-64. The overall Shore D hardness of the outer cover is 55 or less, and generally is 40-55. It is preferred that the overall Shore D hardness of the outer cover is in the range of 40-50 in order to impart particularly good playability characteristics to the ball.

Page 33.

Additionally, adjusting the degree of neutralization of materials and their blends is described as a technique for adjusting hardness:

The acid groups of these materials and blends are neutralized with one or more of various cation salts including zinc, sodium, magnesium, lithium, potassium, calcium, manganese, nickel, etc. The degree of neutralization ranges from 10 – 100%. Generally, a higher degree of neutralization results in a harder and tougher cover material.

Page 34.

A specific technique for attaining a particular degree of neutralization is also set forth in the present application:

The amount of metal cation salt utilized to produce the neutralized ionic copolymers is the quantity which provides a sufficient amount of the metal cations to neutralize the desired percentage of the carboxylic acid groups in the high acid copolymer. When two or more different copolymers are to be used, the copolymers can be blended before or after neutralization. Generally, it is preferable to blend the copolymers before they are neutralized to provide for optimal mixing.

Page 34-35.

Yet another technique for adjusting hardness or softness is described as simply adding a softening agent:

Moreover, the cover compositions of the present invention may also contain softening agents such as those disclosed in U.S. Patent Nos. 5,312,857 and 5,306,760, including plasticizers, metal stearates, processing acids, etc., and reinforcing materials such as glass fibers and inorganic fillers, as long as the desired properties produced by the golf ball covers of the invention are not impaired.

Pages 35-36.

Further teachings of adjusting hardness by tailoring the proportions of materials in a blend are noted in the application as:

Soft ionomers primarily are used in formulating the hard/soft blends of the cover compositions. These ionomers include acrylic acid and methacrylic acid based soft ionomers. They are generally characterized as comprising sodium, zinc, or other mono-or divalent metal cation salts of a terpolymer of an olefin having from about 2 to 8 carbon atoms, methacrylic acid, acrylic acid, or another α , β -unsaturated carboxylic acid, and an unsaturated monomer of the acrylate ester class having from 1 to 21 carbon atoms. The soft ionomer is preferably made from an acrylic acid base polymer in an unsaturated monomer of the acrylate ester class.

Page 37.

The hard ionomeric resins are likely copolymers of ethylene and acrylic and/or methacrylic acid, with copolymers of ethylene and acrylic acid being the most preferred. Two or more types of hard ionomeric resins may be blended into the outer cover layer compositions in order to produce the desired properties of the resulting golf balls.

Page 41.

It has been determined that when hard/soft ionomer blends are used for the outer cover layer, good results are achieved when the relative combination is in a range of about 3-25 percent hard ionomer and about 75-97 percent soft ionomer.

Page 44.

Specific teachings for adjusting the hardness and weight (and thus specific gravity) of the core are provided on pages 46 and 47:

To achieve higher coefficients of restitution and/or to increase hardness in the core, the manufacturer may include a small amount of a metal oxide such as zinc oxide. In addition, larger amounts of metal oxide than are needed to achieve the desired coefficient may be included in order to increase the core weight so that the finished ball more closely approaches the U.S.G.A. upper weight limit of 1.620 ounces. Non-limiting examples of other materials which may be used in the core composition including compatible rubbers or ionomers, and low molecular weight fatty acids such as stearic acid.

Additionally, core modifications are described as:

In addition, larger amounts of metal oxide than those that are needed to achieve the desired coefficient are often included in conventional cores in order to increase the core weight so that the finished ball more closely approaches the U.S.G.A. upper weight limit of 1.620 ounces. Other materials may be used in the core composition including compatible rubbers or ionomers, and low molecular weight fatty acids such as stearic acid.

Page 48.

In the discussion of methods of making the present invention golf balls, it is further noted that various additives may be used in forming particular components of the golf ball:

If necessary, further additives such as an inorganic filler, etc., may be added and uniformly mixed before initiation of the molding process. A similar process is utilized to formulate the high acid ionomer resin compositions used to produce the inner cover layer.

Page 50.

Contrary to the Examiner's assumptions, it would not constitute undue experimentation to form the noted cores and layers having the recited specific gravities and hardness values given that the present specification already provides several values and associated teachings, that are very near to those specified and claimed. The Examiner's view is incorrect and essentially amounts to a conclusion that a person in this field of art has no expertise in adjusting specific gravity or hardness.

It is respectfully submitted that the Examiner is proceeding along a misguided course. The Examiner should refrain from attempting to surmise the extent of knowledge of one reasonably skilled in this field of art, the extent of information known in the art, and what may or may not constitute undue experimentation. The MPEP states in this regard, "The examiner should never make the determination [of enablement] based on personal opinion." § 2164.05 MPEP, (bracketed text added, emphasis in original).

The rejection under § 112, first paragraph, must be reversed.

D. Rejection of Claims 1-3 and 5-8 Under 35 U.S.C. § 102 Based Upon EP 633,043 to Higuchi Must Be Reversed

Although framed by the Examiner as an anticipation rejection, the actual issue at hand is whether the claims at issue are entitled to the filing date of a

parent application, i.e. U.S. application Serial No. 08/070,510. This is explained as follows.

In support of this ground of rejection, the Examiner argued:

The earliest filing date from which applicant can claim priority for the claimed subject matter is the filing date of the instant application therefore the following rejection applies:

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office Action:

A person shall be entitled to a patent unless -
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 3-8 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Higuchi (EP 633043A).

Pages 3-4 of January 13, 2003 Office Action.

In response to previously submitted reasons why the rejection is improper, the Examiner further contended:

Regarding the rejection under 35 USC 102(b), the rejection is maintained. The claimed subject matter does not obtain the benefit of the earlier filing dates. The application incorrectly claims priority to parent applications that it is not entitled.

Page 5 of January 13, 2003 Office Action.

The Examiner's rejection is based upon the incorrect assumption that the pending claims are only entitled to the filing date of the present application which is September 10, 1997.

The present application claims priority upon an application that was filed prior to the earliest effective date of the EP 633,043 document cited by the Examiner. The present application claims priority upon U.S. Serial No. 08/070,510 filed June 1, 1993, now abandoned. That application significantly predates the earliest date of the EP '043 application, which is January 11, 1995.

IX. CONCLUSION

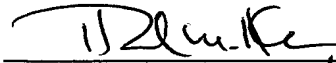
In view of the foregoing, Appellants submit that all claims 1 and 3-8 are in condition for allowance.

Accordingly, it is respectfully requested that the Examiner's rejections be reversed.

Respectfully submitted,

FAY, SHARPE, FAGAN,

MINNICH & MCKEE, LLP



Richard M. Klein

Reg. No. 33,000

Mark E. Bandy

Reg. No. 35,788

1100 Superior Avenue

Suite 700

Cleveland, Ohio 44114-2579

(216) 861-5582

N:\SLDZ\200121\US\MAT0600A.doc

X. APPENDIX OF CLAIMS (37 C.F.R. §1.192 (c)(a))

1. A three piece solid golf ball comprising:
a center core, an intermediate layer, and a cover enclosing the core through the intermediate layer;
said center core having a diameter of at least 29 mm (1.1417 inches) and a specific gravity of less than 1.4;
said intermediate layer formed of an ionomer resin base composition and having a thickness of at least 1 mm (0.03937 inches), a specific gravity of less than 1.2, and a hardness of at least 85 on JIS C (Shore C) scale, the specific gravity of said intermediate layer being lower than the specific gravity of said center core; and said cover having a thickness of 1 to 2.54 mm (0.03937 to 0.10 inches) and being softer than said intermediate layer.
3. The golf ball of claim 1 wherein said cover has a hardness of 50 to 81 on JIS C (Shore C) scale.
4. The golf ball of claim 1 wherein said center core is comprised of a polybutadiene base rubber composition.
5. The golf ball of claim 1 wherein the diameter of said center core is in the range of 29-37 mm (1.1417 to 1.4567 inches).
6. The golf ball of claim 1 wherein a difference in the specific gravity between the center core and the intermediate layer is in the range of 0.1 to 0.5.
7. The golf ball of claim 1 wherein the specific gravity of said intermediate layer is in the range of 0.9 to 1.0.
8. The golf ball of claim 1 wherein the hardness of said intermediate layer is in the range of 90-100 on JIS C (Shore C) scale.